

ELECTROPOLISHING AND ELECTROPLATING METHODS

ABSTRACT OF THE DISCLOSURE

In one aspect of the present invention, an exemplary method is provided for electroplating a conductive film on a wafer. The method includes electroplating a metal film on a semiconductor structure having recessed regions and non-recessed regions within a first current density range before the metal layer is planar above recessed regions of a first density, and electroplating within a second current density range after the metal layer is planar above the recessed regions. The second current density range is greater than the first current density range. In one example, the method further includes electroplating in the second current density range until the metal layer is planar above recessed regions of a second density, the second density being greater than the first density, and electroplating within a third current density range thereafter.